

ABSTRACT OF THE DISCLOSURE

A method of producing a semiconductor device, wherein after a trench is formed on a field region of a semiconductor substrate, an adsorption reaction of TEOS and a decomposition/recomposition reaction of TEOS using as a catalyst oxygen atoms decomposed from O_3 are independently and repeatedly performed. As disclosed, the oxide layer can be buried in the trench with a fine width without generating voids therein, increasing electrical property of the semiconductor device.